RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 09/910,208
Source: IFW16
Date Processed by STIC: 3/29/07

ENTERED

IFW16

RAW SEQUENCE LISTING DATE: 03/29/2007
PATENT APPLICATION: **US/09/910,208D** TIME: 11:13:10

Input Set : **F:\MM4454.ST25.txt**
Output Set: **N:\CRF4\03292007\I910208D.raw**

<110> APPLICANT: Hitomi, Jiro
Yamamura, Tokujiro
Kimura, Tatsuji
Yamaguchi, Ken
<120> TITLE OF INVENTION: Novel Calcium-Binding Proteins
<130> FILE REFERENCE: MM4454
<140> CURRENT APPLICATION NUMBER: 09/910,208D
<141> CURRENT FILING DATE: 2001-07-20
<160> NUMBER OF SEQ ID NOS: 20
<170> SOFTWARE: PatentIn version 3.3
<210> SEQ ID NO: 1
<211> LENGTH: 429
<212> TYPE: DNA
<213> ORGANISM: Bovine calcium binding protein
<220> FEATURE:
<221> NAME/KEY: exon
<222> LOCATION: (48)..(323)
<223> OTHER INFORMATION: Amino acid sequence of calcium-binding protein from bovine amniotic fluid
<400> SEQUENCE: 1

```
ctggcattcc acacttctgt gcagaggggt gaacgtagtt tggtaaa atg act aag       56
                                                    Met Thr Lys
                                                    1

ctg gaa gat cac ctg gag gga atc atc aac atc ttc cac cag tac tcc      104
Leu Glu Asp His Leu Glu Gly Ile Ile Asn Ile Phe His Gln Tyr Ser
    5                  10                  15

gtt cgg gtg ggg cat ttc gac acc ctc aac aag cgt gag ctg aag cag      152
Val Arg Val Gly His Phe Asp Thr Leu Asn Lys Arg Glu Leu Lys Gln
20                  25                  30                  35

ctg atc aca aag gaa ctt ccc aaa acc ctc cag aac acc aaa gat caa      200
Leu Ile Thr Lys Glu Leu Pro Lys Thr Leu Gln Asn Thr Lys Asp Gln
                40                  45                  50

cct acc att gac aaa ata ttc caa gac ctg gat gcc gat aaa gac gga      248
Pro Thr Ile Asp Lys Ile Phe Gln Asp Leu Asp Ala Asp Lys Asp Gly
            55                  60                  65

gcc gtc agc ttt gag gaa ttc gta gtc ctg gtg tcc agg gtg ctg aaa      296
Ala Val Ser Phe Glu Glu Phe Val Val Leu Val Ser Arg Val Leu Lys
        70                  75                  80

aca gcc cac ata gat atc cac aaa gag taggaagctc tttccagcaa            343
Thr Ala His Ile Asp Ile His Lys Glu
    85                  90

tgtccccaag aagacttacc cttctcctcc ctgaggctgc cttacccgag ggaagagaga    403

attaataaac gtactttggc aaagtt                                        429
```

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Input Set : **F:\MM4454.ST25.txt**
Output Set: **N:\CRF4\03292007\I910208D.raw**

<210> SEQ ID NO: 2
<211> LENGTH: 50
<212> TYPE: PRT
<213> ORGANISM: Bos taurus
<400> SEQUENCE: 2

Thr	Lys	Leu	Glu	His	Leu	Glu	Gly	Ile	Ile	Asn	Ile	Phe	His	Gln	Tyr
1				5				10						15	
Ser	Val	Arg	Val	Gly	His	Phe	Asp	Thr	Leu	Asn	Lys	Arg	Glu	Leu	Lys
			20					25					30		
Gln	Leu	Ile	Thr	Lys	Glu	Leu	Pro	Lys	Thr	Leu	Gln	Asn	Thr	Lys	Asp
		35					40					45			
Gln	Pro														
	50														

<210> SEQ ID NO: 3
<211> LENGTH: 8
<212> TYPE: PRT
<213> ORGANISM: Bos taurus
<400> SEQUENCE: 3

Ile	Phe	Gln	Asp	Leu	Asp	Ala	Asp
1				5			

<210> SEQ ID NO: 4
<211> LENGTH: 12
<212> TYPE: PRT
<213> ORGANISM: Bos taurus
<400> SEQUENCE: 4

Asp	Gly	Ala	Val	Ser	Phe	Glu	Glu	Phe	Val	Val	Leu
1				5				10			

<210> SEQ ID NO: 5
<211> LENGTH: 9
<212> TYPE: PRT
<213> ORGANISM: Bos taurus
<400> SEQUENCE: 5

Thr	Ala	His	Ile	Asp	Ile	His	Lys	Glu
1				5				

<210> SEQ ID NO: 6
<211> LENGTH: 31
<212> TYPE: PRT
<213> ORGANISM: Bos taurus
<400> SEQUENCE: 6

Leu	Pro	Lys	Thr	Leu	Gln	Asn	Thr	Lys	Asp	Gln	Pro	Thr	Ile	Asp	Lys
1				5				10					15		
Ile	Phe	Gln	Asp	Leu	Asp	Ala	Asp	Lys	Asp	Gly	Ala	Val	Ser	Phe	
		20					25					30			

<210> SEQ ID NO: 7
<211> LENGTH: 20
<212> TYPE: PRT
<213> ORGANISM: Bos taurus
<400> SEQUENCE: 7

Glu	Phe	Val	Val	Leu	Val	Ser	Arg	Val	Leu	Lys	Arg	Ala	His	Ile	Asp

RAW SEQUENCE LISTING DATE: 03/29/2007
PATENT APPLICATION: **US/09/910,208D** TIME: 11:13:10

Input Set : **F:\MM4454.ST25.txt**
Output Set: **N:\CRF4\03292007\I910208D.raw**

144 1 5 10 15
147 Ile His Lys Glu
148 20
151 <210> SEQ ID NO: 8
152 <211> LENGTH: 20
153 <212> TYPE: DNA
154 <213> ORGANISM: Artificial
156 <220> FEATURE:
157 <223> OTHER INFORMATION: sense primer
160 <220> FEATURE:
161 <221> NAME/KEY: misc_feature
162 <222> LOCATION: (3)..(3)
163 <223> OTHER INFORMATION: n is a, c, g or t
165 <220> FEATURE:
166 <221> NAME/KEY: misc_feature
167 <222> LOCATION: (15)..(15)
168 <223> OTHER INFORMATION: n is a, c, g, or t
170 <400> SEQUENCE: 8
W--> 171 **ttngargayc ayytngargg** 20
174 <210> SEQ ID NO: 9
175 <211> LENGTH: 20
176 <212> TYPE: DNA
177 <213> ORGANISM: Artificial
179 <220> FEATURE:
180 <223> OTHER INFORMATION: antisense primer
183 <220> FEATURE:
184 <221> NAME/KEY: misc_feature
185 <222> LOCATION: (18)..(18)
186 <223> OTHER INFORMATION: n is a, c, g, or t
188 <400> SEQUENCE: 9
W--> 189 **ttrtgdatrt cdatrtgngc** 20
192 <210> SEQ ID NO: 10
193 <211> LENGTH: 23
194 <212> TYPE: DNA
195 <213> ORGANISM: Artificial
197 <220> FEATURE:
198 <223> OTHER INFORMATION: forward primer
200 <400> SEQUENCE: 10
201 ggtggcacga ctcctggagc ccg 23
204 <210> SEQ ID NO: 11
205 <211> LENGTH: 24
206 <212> TYPE: DNA
207 <213> ORGANISM: Artificial
209 <220> FEATURE:
210 <223> OTHER INFORMATION: reverse primer
212 <400> SEQUENCE: 11
213 ttgacaccag accaactggt aatg 24
216 <210> SEQ ID NO: 12
217 <211> LENGTH: 440

RAW SEQUENCE LISTING DATE: 03/29/2007
PATENT APPLICATION: US/09/910,208D TIME: 11:13:10

Input Set : F:\MM4454.ST25.txt
Output Set: N:\CRF4\03292007\I910208D.raw

<212> TYPE: DNA
<213> ORGANISM: human calcium-binding protein
<220> FEATURE:
<221> NAME/KEY: exon
<222> LOCATION: (22)..(297)
<223> OTHER INFORMATION: Deduced amino acid sequence for human calcium-binding protein
<400> SEQUENCE: 12

```
ggttaacatt aggctgggaa g atg aca aaa ctt gaa gag cat ctg gag gga       51
                        Met Thr Lys Leu Glu Glu His Leu Glu Gly
                        1               5                   10
att gtc aat atc ttc cac caa tac tca gtt cgg aag ggg cat ttt gac       99
Ile Val Asn Ile Phe His Gln Tyr Ser Val Arg Lys Gly His Phe Asp
                15                  20                  25
acc ctc tct aag ggt gag ctg aag cag ctg ctt aca aag gag ctt gca      147
Thr Leu Ser Lys Gly Glu Leu Lys Gln Leu Leu Thr Lys Glu Leu Ala
            30                  35                  40
aac acc atc aag aat atc aaa gat aaa gct gtc att gat gaa ata ttc      195
Asn Thr Ile Lys Asn Ile Lys Asp Lys Ala Val Ile Asp Glu Ile Phe
        45                  50                  55
caa ggc ctg gat gct aat caa gat gaa cag gtc gac ttt caa gaa ttc      243
Gln Gly Leu Asp Ala Asn Gln Asp Glu Gln Val Asp Phe Gln Glu Phe
    60                  65                  70
ata tcc ctg gta gcc att gcg ctg aag gct gcc cat tac cac acc cac      291
Ile Ser Leu Val Ala Ile Ala Leu Lys Ala Ala His Tyr His Thr His
75                  80                  85                  90
aaa gag taggtagctc tctgaagctt tttacccagc aatgtcctca atgagggtct      347
Lys Glu
tttctttccc tcaccaaaac ccagccttgc ccgtggggag taagagttaa taaacacact    407
cacgaaaagt taaaaaaaaa aaaaaaaaat tct                                 440
```

<210> SEQ ID NO: 13
<211> LENGTH: 20
<212> TYPE: DNA
<213> ORGANISM: Artificial
<220> FEATURE:
<223> OTHER INFORMATION: sense primer
<400> SEQUENCE: 13

```
actatcaaca tcttccacca                                                20
```

<210> SEQ ID NO: 14
<211> LENGTH: 20
<212> TYPE: DNA
<213> ORGANISM: artificial
<220> FEATURE:
<223> OTHER INFORMATION: antisense primer
<400> SEQUENCE: 14

```
tctttatcgg catccaggtc                                                20
```

<210> SEQ ID NO: 15
<211> LENGTH: 15
<212> TYPE: DNA
<213> ORGANISM: Artificial

RAW SEQUENCE LISTING DATE: 03/29/2007
PATENT APPLICATION: **US/09/910,208D** TIME: 11:13:10

Input Set : **F:\MM4454.ST25.txt**
Output Set: **N:\CRF4\03292007\I910208D.raw**

290 <220> FEATURE:
291 <223> OTHER INFORMATION: primer PMN.HP7S 1-15
293 <400> SEQUENCE: 15
294 tactcagttc ggaag 15
297 <210> SEQ ID NO: 16
298 <211> LENGTH: 15
299 <212> TYPE: DNA
300 <213> ORGANISM: Artificial
302 <220> FEATURE:
303 <223> OTHER INFORMATION: primer PMN.HP7A 126-112
305 <400> SEQUENCE: 16
306 ttggaatatt tcatc 15
309 <210> SEQ ID NO: 17
310 <211> LENGTH: 20
311 <212> TYPE: DNA
312 <213> ORGANISM: Artificial
314 <220> FEATURE:
315 <223> OTHER INFORMATION: primer HP7S 7-26
317 <400> SEQUENCE: 17
318 acattaggct gggaagatga 20
321 <210> SEQ ID NO: 18
322 <211> LENGTH: 20
323 <212> TYPE: DNA
324 <213> ORGANISM: Artificial
326 <220> FEATURE:
327 <223> OTHER INFORMATION: primer HP7A 336-317
329 <400> SEQUENCE: 18
330 ggacattgct gggtaaaaag 20
333 <210> SEQ ID NO: 19
334 <211> LENGTH: 92
335 <212> TYPE: PRT
336 <213> ORGANISM: Bovine calcium binding protein
339 <220> FEATURE:
340 <221> NAME/KEY: misc_feature
341 <222> LOCATION: (1)..(92)
342 <223> OTHER INFORMATION: Amino acid sequence of SEQ ID No. 1
344 <400> SEQUENCE: 19

```
346 Met Thr Lys Leu Glu Asp His Leu Glu Gly Ile Ile Asn Ile Phe His
347 1               5                  10                  15
350 Glu Tyr Ser Val Arg Val Gly His Phe Asp Thr Leu Asn Lys Arg Glu
351             20                  25                  30
354 Leu Lys Gln Leu Ile Thr Lys Glu Leu Pro Lys Thr Leu Gln Asn Thr
355         35                  40                  45
358 Lys Asp Gln Pro Thr Ile Asp Lys Ile Phe Gln Asp Leu Asp Ala Asp
359     50                  55                  60
362 Lys Asp Gly Ala Val Ser Phe Glu Glu Phe Val Val Leu Val Ser Arg
363 65                  70                  75                  80
366 Val Leu Lys Thr Ala His Ile Asp Ile His Lys Glu
367                 85                  90
```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 03/29/2007
PATENT APPLICATION: **US/09/910,208D** TIME: 11:13:11

Input Set : **F:\MM4454.ST25.txt**
Output Set: **N:\CRF4\03292007\I910208D.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:8; N Pos. 3,15
Seq#:9; N Pos. 18

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:8,9,10,11,13,14,15,16,17,18

VERIFICATION SUMMARY DATE: 03/29/2007
PATENT APPLICATION: **US/09/910,208D** TIME: 11:13:11

Input Set : **F:\MM4454.ST25.txt**
Output Set: **N:\CRF4\03292007\I910208D.raw**

L:171 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:189 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0